1. Which of the following dynasty was established in the 10th century, after the decline of Pratihara rule?
   (A) Tomara dynasty  
   (B) Gurjar dynasty  
   (C) Sondh dynasty  
   (D) Maurya dynasty

2. Find out the wrong number in the series 3, 15, 27, 63, 127, 255.
   (A) 7  
   (B) 63  
   (C) 15  
   (D) 27

3. Who said printing is a gift of god?
   (A) Martin Luther  
   (B) Charles Dickens  
   (C) Marco Polo  
   (D) Guttenberg

4. If \( f(x) = \left\{ \begin{array}{ll} x^2 + 3x + p, & \text{if } x \leq 1 \\ qx + 2, & \text{if } x > 1 \end{array} \right. \)
   is differentiable at \( x = 1 \), then the value of \( p \) and \( q \) are respectively
   (A) 5.2  
   (B) -3.5  
   (C) 3.5  
   (D) 2.5

5. Who was the winner of IPL – 2019?
   (A) Royal Challengers Bengaluru (RCB)  
   (B) Chennai Super Kings (CSK)  
   (C) Mumbai Indians (MI)  
   (D) None of the above

6. Which of the following is the resistance offered by a body against its elongation?
   (A) Compressive stress  
   (B) Combined stress  
   (C) Tensile stress  
   (D) Shear stress

7. प्रतिहार शासन की समाप्ति के बाद 10 वीं सदी में किस राजवंश की स्थापना हुई?
   (A) तौमर वंश  
   (B) गुर्जर वंश  
   (C) मोह वंश  
   (D) मौर्य वंश

8. शृंगारला 3, 7, 15, 27, 63, 127, 255 में गलत संख्या ज्ञात करें।
   (A) 7  
   (B) 63  
   (C) 15  
   (D) 27

9. किसने मुद्रण को ईश्वर का उपहार कहा?
   (A) मार्टिन लूथर  
   (B) चार्ल्स डिकंस  
   (C) माको पोली  
   (D) गुटेंबर्ग

10. यदि \( x = 1 \) पर \( f(x) = \left\{ \begin{array}{ll} x^2 + 3x + p, \quad \text{यदि } x \leq 1 \\ qx + 2, \quad \text{यदि } x > 1 \end{array} \right. \)
    अवकल है, तो \( p \) और \( q \) के मान क्रमशः हैं:
    (A) 5.2  
    (B) -3.5  
    (C) 3.5  
    (D) 2.5

11. आई.पी.एल. – 2019 का विजेता कौन था?
    (A) रॉयल चेलेंजर्स बेंगलुरू (RCB)  
    (B) चेन्नई सुपर किंग्स (CSK)  
    (C) मुंबई इंडियंस (MI)  
    (D) उपर्युक्त में से कोई नहीं

12. निम्नलिखित में से कौन-सा एक चतुर्वेक्स द्वारा उसके
    दोषकिरण के विकृत लगाया गया प्रतिरोध है?
    (A) संपीडक प्रतिबंध  
    (B) संयुक्त प्रतिबंध  
    (C) नाम प्रतिबंध  
    (D) अपराध प्रतिबंध
7. The energy possessed by a body for doing work by virtue of its position is called
   (A) Chemical energy
   (B) Kinetic energy
   (C) Potential energy
   (D) None of the above

8. How many 3-digit numbers can be formed from the digits 2, 3, 5, 6, 7 and 9, which are divisible by 5 and none of the digits is repeated?
   (A) 5  (B) 20  (C) 10  (D) 15

9. Primary colours are
   (A) RGB  (B) WGB  (C) CYB  (D) RYB

10. The district of Haryana that does not share its boundaries with any of the States or Union Territory is
    (A) Rohtak  (B) Sonipat  (C) Sirsa  (D) Jind

11. Which of the following district of Haryana cover the largest area of forest?
    (A) Mewat  (B) Rewari  (C) Panchkula  (D) Rohtak

12. If two systems P and Q are in thermal equilibrium with third system M, then P and Q are also in thermal equilibrium with each other. This is following
    (A) First law of thermodynamics
    (B) Zeroth law of thermodynamics
    (C) Second law of thermodynamics
    (D) Third law of thermodynamics

13. Which of the following novel narrates the plight of widows in India?
    (A) Godan  (B) Yamuna Paryatan
    (C) Amar Jiban  (D) Chandrakanta
14. Surface imperfections such as minute cavities, holes, porosities, cracks, etc. which appear at frequent intervals and at random locations are called
   (A) Lays  (B) Waviness  (C) Flaws  (D) Profile

15. If \( x \) is real, the minimum value of \( x^2 - 8x + 17 \) is
   (A) \(-1\)  (B) 2  (C) 0  (D) 1

16. The total effort made by a manufacturer to ensure that his products conform to a detailed set of specifications and standards is known as
   (A) Inspection  (B) Tolerance  (C) Quality assurance  (D) Product quality

17. Server-side JavaScript is also known as
   (A) LiveWire  (B) Query  (C) Bus  (D) Script

18. If 3 vertices of a Parallelogram ABCD are \( A(1, 2, 3) \), \( B(-1, -2, -1) \) and \( C(2, 3, 2) \) (taken in order), then the 4th vertex \( D \) is
   (A) \((4, -7, 6)\)  (B) \((3, 7, 6)\)  (C) \((4, 7, 6)\)  (D) \((-4, 7, 6)\)

19. Which of the following State of India has bicameral legislature?
   (A) Maharashtra  (B) Tamil Nadu  (C) Rajasthan  (D) Gujarat

20. In Haryana, Sal trees are found in
   (A) Sonipat forests  (B) Gurgaon forests  (C) Rohtak forests  (D) Kalesar forests

21. The area enclosed by the curve \( x = 3 \cos t \), \( y = 2 \sin t \) is
   (A) \(6\pi \) sq. units  (B) \(\pi \) sq. units  (C) \(12\pi \) sq. units  (D) none of these

14. पृथ्वीय वृक्षों के छोटे पुर्तिकाएँ, खिड़कें, फलिकाएँ, लाड़ा, आदि जो प्राकृतिक अंतराल और पत्रहस्तिक स्थानों पर रहती हैं, उन्हें कहते हैं।

15. यदि \( x \) वास्तविक है, तो \( x^2 - 8x + 17 \) का न्यूनतम मान है नहीं।

16. एक निर्माता द्वारा किया गया कुल ग्राहकों जो यह सुनिश्चित करे कि उसकी उत्पाद निर्माताओं और मानकों के एक विस्तृत समूह पर खरी उत्तरता है,

17. सर्व-साइड जावास्क्रिप्ट को ___ बि कहते हैं।

18. एक समद्विक्षण ABCD के तीन शीर्ष हैं A(1, 2, 3), B(-1, -2, -1) और C(2, 3, 2) (क्रमानुसार), तो चौथा शीर्ष D है

19. भारत के निम्नलिखित में से किस राज्य में द्विसदायी विधानसभा है?

20. शहरियत में साल वृक्ष में पाए जाते हैं।

21. यदि \( x = 3 \cos t, y = 2 \sin t \) द्वारा प्रदीय पाया क्षेत्रफल है

(A) \(6\pi \) वर्ग इकाई  (B) \(\pi \) वर्ग इकाई  (C) \(12\pi \) वर्ग इकाई  (D) इनमें से कोई नहीं
22. What is facing operation?
(A) Bevelling the extreme end of a workpiece
(B) Machining the ends of a workpiece to produce a flat surface square with the axis
(C) Embossing a diamond shaped pattern on the surface of a workpiece
(D) Reducing the diameter of a workpiece over a very narrow surface

23. Maharshi Ved Vyasa wrote Mahabharata epic in
(A) Thanesar   (B) Karnal
(C) Kurukshetra (D) Ambala

24. Which of the following Amendment bill to the Constitution deals with the 10 percent reservation in jobs and educational institutions to economically backward section in the general category?
(A) 112th Amendment bill
(B) 124th Amendment bill
(C) 122nd Amendment bill
(D) None of the above

25. Which of the following factors specify the grade of the files?
(A) Teeth/10 mm
(B) Width of the files
(C) Length of the files
(D) Shape of the files

26. Music of Pandit Jasraj belongs to which of the following Gharanas?
(A) Agra   (B) Kirana
(C) Gwallor (D) Mewati

27. The loud pulsating noise heard within the cylinder of an IC engine is known as
(A) Super charging   (B) Pre-ignition
(C) Turbulence   (D) Detonation
28. Who is the first Muslim ruler of Delhi and Haryana?
   (A) Kumarapala  
   (B) Quutb-ud-din Aibak  
   (C) Prithviraj  
   (D) Muhammad Gauri

29. Packing efficiency in body-centred cubic structures is
   (A) 68%  
   (B) 72%  
   (C) 74%  
   (D) 52.4%

30. Mating parts in sub-assembly or main assembly are joined tightly together and no relative motion is possible in
   (A) Clearance fit  
   (B) Transition fit  
   (C) Interference fit  
   (D) None of the above

31. Which of the following is the condition for maximum power transmission in pipes?
   (A) Loss of head due to friction is equal to the total head at inlet  
   (B) Loss of head due to friction is one third of the total head at inlet  
   (C) Loss of head due to friction is 1/5 of the total head at inlet  
   (D) Loss of head due to friction is half of the total head at inlet

32. To increase the green cover in the State, Haryana Government launched a scheme in 2018 is
   (A) Paradise  
   (B) Baundhgarhi  
   (C) Budhgarhi  
   (D) Haryali

33. The book written by Chinese traveler depicts power and glory of which place of Haryana?
   (A) Bising  
   (B) Indraprastha  
   (C) Patiala  
   (D) Thanesar
34. How many number of crankshaft revolutions makes one complete cycle of 4 stroke cycle engine?
   (A) 1/2  (B) 4  (C) 1  (D) 2

35. “Keibul Lamjao National Park”, the only floating park in the world, located in which of the following North-East Indian State?
   (A) Manipur  (B) Tripura  (C) Assam  (D) Nagaland

36. If \( y = \sqrt{\sin x + y} \), then \( \frac{dy}{dx} = \)
   (A) \( \frac{\cos x}{2y - 1} \)  (B) \( \frac{\sin x}{2y - 1} \)
   (C) \( \frac{\cos x}{1 - 2y} \)  (D) \( \frac{\sin x}{1 - 2y} \)

37. The value of \( \lambda \) for which the 2 vectors \( 2i - \lambda j + 2k \) and \( 3i + \lambda j + k \) are perpendicular is
   (A) 2  (B) 8  (C) 4  (D) -8

38. If \( x = \frac{\sqrt{3} + 1}{\sqrt{3} - 1} \) and \( y = \frac{\sqrt{3} - 1}{\sqrt{3} + 1} \), then the value of \( x^2 + y^2 \) is
   (A) 10  (B) 15  (C) 13  (D) 14

39. The native tree of India which has been declared as State tree of Haryana, this tree is considered to have a religious significance in three major religions is
   (A) Sandalwood  (B) Peepal  (C) Teak  (D) Banyan

40. In how many ways can the letters of the word LEADER be arranged?
   (A) 72  (B) 720  (C) 144  (D) 360

34. कितने प्रकाशांक पूर्णता के अध्यायों का एक पूर्ण चक्र बनाते है?
   (A) 1/2  (B) 4  (C) 1  (D) 2

35. विश्व का एकमात्र उद्यानों का “कैनुल लाम्जाउ” राष्ट्रीय उद्यान” निभायित में से किस उप-पूर्वी भारतीय राज्य में स्थित है?
   (A) मणिपुर  (B) बिहार  (C) असम  (D) नागालैंड

36. \( y = \sqrt{\sin x + y} \) है\( \frac{dy}{dx} = \)
   (A) \( \frac{\cos x}{2y - 1} \)  (B) \( \frac{\sin x}{2y - 1} \)
   (C) \( \frac{\cos x}{1 - 2y} \)  (D) \( \frac{\sin x}{1 - 2y} \)

37. \( \lambda \) का मान जिसके लिए 2 संवि \( 2i - \lambda j + 2k \) और \( 3i + \lambda j + k \) सम्बन्ध है?
   (A) 2  (B) 8  (C) 4  (D) -8

38. \( x = \frac{\sqrt{3} + 1}{\sqrt{3} - 1} \) और \( y = \frac{\sqrt{3} - 1}{\sqrt{3} + 1} \) है, तो \( x^2 + y^2 \) का मान है?
   (A) 10  (B) 15  (C) 13  (D) 14

39. यह भारतीय भूमि के कुल की हिंसकता के राष्ट्रीय उद्यान भोजपुरी गया है, यह कुल को तीन मुख्य धर्मों में एक धार्मिक महत्व वाला माना जाता है?
   (A) चन्द  (B) पीपल  (C) टीक  (D) वंगांद

40. शहीद LEADER के अक्षरों को कितने तरीकों से स्थापित किया जा सकता है?
   (A) 72  (B) 720  (C) 144  (D) 360
41. Tomb of ______, who was South Asia's first female monarch is in Kaithal, Haryana.
(A) Rani Padmini
(B) Noorjahan
(C) Razia Sultana
(D) None of the above

42. \[4^4 + 4^4 + 4^4 + 4^4\] is divisible by
(A) 3
(B) 13
(C) 10
(D) 11

43. The value of \[i \cdot (j \times k) + j \cdot (l \times k) + k \cdot (i \times j)\] is
(A) 0
(B) 3
(C) -1
(D) 1

44. Who founded the Slave dynasty at Delhi?
(A) Aibak
(B) Babur
(C) Masud
(D) Humayun

45. Which axis controls the carriage travel toward or away from the headstock in CNC lathe?
(A) Z-axis
(B) X-axis
(C) Y-axis
(D) None of the above

46. Which of the following poet is regarded as the John Milton of Haryana?
(A) Altaf Hussain Hall
(B) Kashmiri Lal Zakir
(C) Dayachand Mayna
(D) Samartha Vashishtha

47. Who was the fourth Mughal Emperor?
(A) Jahangir
(B) Humayun
(C) Akbar
(D) Babur

48. \[4^4 + 4^4 + 4^4 + 4^4\] द्वारा विभाज्य है?
(A) 3
(B) 13
(C) 10
(D) 11

49. \[i \cdot (j \times k) + j \cdot (l \times k) + k \cdot (i \times j)\] का मान है?
(A) 0
(B) 3
(C) -1
(D) 1

50. दिल्ली में स्तर बंध की स्थापना किसने की?
(A) ऐबक
(B) बाबर
(C) मसूद
(D) हुमएयूँ

51. CNC खराब में कौन-सी धुरी हेडस्ट्रॉक की ओर या उससे दूर कैरेज का आना-जाना नियंत्रित करती है?
(A) Z-धुरी
(B) X-धुरी
(C) Y-धुरी
(D) उपरुप्त में से कोई नहीं

52. निम्नलिखित में से किस कवि को हरियाणा का जॉन मिल्टन कहते हैं?
(A) अल्ताफ हसैन हाली
(B) कश्मीरी लल जाफिर
(C) वायार्हें माजिया
(D) समर्ध वशिष्ठ

53. चौथा मुगल वादसाह खौन था?
(A) अहारीगीर
(B) हुमएयूँ
(C) अकबर
(D) बाबर
48. If n is a negative number then which of the following is the least?
   (A) 0  (B) n²  (C) −n  (D) 2n

49. What is the included angle in ACME thread?
   (A) 60 degrees  (B) 29 degrees  (C) 55 degrees  (D) 37.5 degrees

50. Summer Olympics 2020 will be hosted in which of the following city?
   (A) New Delhi, India  (B) Tokyo, Japan  (C) Beijing, China  (D) None of the above

51. Campaign against female foeticide is called
   (A) Bhagya Jyoti  (B) Yatra Scheme  (C) Beti Bachao, Beti Padhao  (D) Lady Police Scheme

52. Which of the following cycle is used in Compression ignition engines?
   (A) Otto cycle  (B) Dual combustion cycle  (C) Rankine cycle  (D) Diesel cycle

53. What is the value of 1 calorie in terms of joules?
   (A) 4.184 joules  (B) 4184 joules  (C) 41.84 joules  (D) 418.4 joules

54. Most of the computer controlled devices make use of
   (A) Sensors  (B) Lights  (C) Signals  (D) Bandwidth
55. The series limit for the Balmer series of ionised helium is \( R_n = 1.09 \times 10^7 \text{ m}^{-1} \) [\( R_n \) = 1.09 \( \times 10^7 \text{ m}^{-1} \)]
   (A) 367 nm  (B) infinity
   (C) 122 nm  (D) 264 nm

56. Which Protocol is used to transfer binary and text files over the Internet?
   (A) HTTP  (B) FTP
   (C) UDP  (D) TCP

57. Kalesar National Park is situated in the district of
   (A) Panchkula  (B) Yamunanagar
   (C) Rewari  (D) Sirsa

58. What is the factor of safety?
   (A) Tensile stress/Tensile strain
   (B) Decrease in length/Original length
   (C) Compressive stress/Compressive strain
   (D) Ultimate stress/Permissible stress

59. Coordination number in hcp structure is
   (A) 8  (B) 6
   (C) 12  (D) 4

60. Nickel brass is also called
   (A) Invar  (B) Cartridge brass
   (C) French gold  (D) German silver

61. Which of the following operates driving mechanism in NC machines?
   (A) CLU  (B) Magnetic box
   (C) DPU  (D) MCU

62. Jim Corbett National Park which is the oldest National Park in India to protect the endangered Bengal Tiger is located at which of the following State?
   (A) Uttar Pradesh  (B) Madhya Pradesh
   (C) Uttarakhand  (D) None of the above
63. The number of bits transferred by a channel per unit time is
   (A) Speed       (B) Unit Rate
   (C) Bandwidth   (D) Broad Band

64. The capital of Haryana is
   (A) Gurugram    (B) Chandigarh
   (C) Sonipat     (D) Bhiwani

65. Who founded Agra in 1504 A.D.?
   (A) Sikandar Khan (B) Muhammad Ghori
   (C) Masud        (D) Babur

66. The product of uncertainty in position $\Delta x$ and momentum $\Delta p$ is approximately equal to
   (A) $h$       (B) 1
   (C) $e$       (D) 0

67. The refrigerant for a refrigerator should have
   (A) High sensible heat
   (B) Low sensible heat
   (C) High latent heat
   (D) Low latent heat

68. The holy lake that Brahma conceived the earth at this place is
   (A) Brahma sarovar (B) Bhindawas
   (C) Surajkund     (D) Sannihit

69. Who is famous with the name of Haryana Kesari?
   (A) Devi Lal
   (B) Pt. Neki Ram Sharma
   (C) Bansi Lal
   (D) Bhagwat Dayal Sharma

63. The number of bits transferred by a channel per unit time is
   (A) Speed       (B) Unit Rate
   (C) Bandwidth   (D) Broad Band

64. The capital of Haryana is
   (A) Gurugram    (B) Chandigarh
   (C) Sonipat     (D) Bhiwani

65. Who founded Agra in 1504 A.D.?
   (A) Sikandar Khan (B) Muhammad Ghori
   (C) Masud        (D) Babur

66. The product of uncertainty in position $\Delta x$ and momentum $\Delta p$ is approximately equal to
   (A) $h$       (B) 1
   (C) $e$       (D) 0

67. The refrigerant for a refrigerator should have
   (A) High sensible heat
   (B) Low sensible heat
   (C) High latent heat
   (D) Low latent heat

68. The holy lake that Brahma conceived the earth at this place is
   (A) Brahma sarovar (B) Bhindawas
   (C) Surajkund     (D) Sannihit

69. Who is famous with the name of Haryana Kesari?
   (A) Devi Lal
   (B) Pt. Neki Ram Sharma
   (C) Bansi Lal
   (D) Bhagwat Dayal Sharma
70. The point on the curve \( y^2 = x \), where the tangent makes an angle of \( \frac{\pi}{4} \) with x axis is
(A) \( \left( \frac{1}{4}, \frac{1}{2} \right) \)  
(B) \( (1, 1) \)
(C) \( \left( \frac{1}{2}, \frac{1}{4} \right) \)  
(D) \( (4, 2) \)

71. WTO is serving as the successor for which of the following organisation?
(A) PETA  
(B) UNDP  
(C) WHO  
(D) GATT

72. The power developed inside the engine cylinder is called
(A) Mechanical power  
(B) Indicated power  
(C) Frictional power  
(D) Brake power

73. The medicinal plants and other non-wood forest product should be protected, improved and their production enhanced is the objective of
(A) JFM  
(B) ARB  
(C) HFD  
(D) HCF

74. The Man Booker International Prize 2019 awarded to which of the following Novel?
(A) Seven Killings  
(B) Milkman  
(C) Celestial Bodies  
(D) None of the above

75. Collection of letters, digits, punctuation characters are called as
(A) Identifiers  
(B) Literals  
(C) Variable  
(D) String

76. Stone tools of palaeolithic age are found in
(A) Sirsa  
(B) Pinjore  
(C) Hisar  
(D) Sonipat
Add suitable question tag for the following:

77. I am her child, ________________
   (A) am I?
   (B) aren't I?
   (C) amn't I?
   (D) are I?

Fill in the blank with article:

78. Sydney is ______________ beautiful city.
   (A) the
   (B) not needed
   (C) a
   (D) an

Find out the erroneous part of the following sentence:

79. 'Unless one is intelligent nothing was taught.'
   (A) unless one is
   (B) was taught
   (C) is intelligent
   (D) nothing

Select the sentence which is grammatically correct from the following sentences:

80. (A) I had been to Bangalore two months ago
    (B) She went to the pictures day before yesterday
    (C) She had gone to the party: last night
    (D) Ameer went to Goa

Choose the correct verb from the options to fill in the blank:

81. In the next few years, thousands of speed cameras __________ on major roads.
   (A) will appear
   (B) appearing
   (C) are appear
   (D) None of the above

Select the appropriate option for the underlined word in the question from the given options:

82. Salma worked hard and got herself promoted.
   (A) verb
   (B) subject
   (C) noun
   (D) pronoun

Fill in the blank with appropriate modal:

83. I __________ do it, whatever happens.
   (A) may
   (B) shall
   (C) might
   (D) will

Choose the abstract noun from the sentence:

84. He spent his childhood in Mumbal.
   (A) He
   (B) Childhood
   (C) His
   (D) Mumbal
85. इनमें से कौनसी परिभाषा ‘संज्ञा’ की नहीं है?
   (A) संज्ञा पदार्थ के नाम को कहते हैं।
   (B) वस्तु के नाम मात्र को संज्ञा कहते हैं।
   (C) व्यक्ति या वस्तु के नर या मादा होने के बोध को ‘संज्ञा’ कहते हैं।
   (D) संज्ञा व्यक्ति के नाम को कहते हैं।

86. ‘काला अक्षर बेहोश बराबर’ इस लोकोक्ति को __________ कहा जाता है।
   (A) जो काले स्वाभी से बड़े बड़े अक्षर लिखता हो उसके लिए
   (B) काले तथा मोटे आदमी के लिए,
   (C) काला और अक्षर नाम के दो व्यक्ति जो बेहोश जैसे मोटे हैं उनके लिए
   (D) बिल्कुल अनपद मनुष्य के लिए।

87. ‘गुड़िया’ शब्द का बहुवचन रूप है?
   (A) गुड़िया
   (B) गुड़िया
   (C) गुड़ियाँ
   (D) गुड़ियाँ

88. ‘जन’ शब्द में ‘सत्’ उपसर्ग लगाने से कौनसा शब्द बनेगा?
   (A) सत्जन
   (B) सत्जन
   (C) सदुजन
   (D) सुजन

89. इनमें से कौनसा शब्द चन्द्रमा का पर्यायवाची नहीं है?
   (A) शशि
   (B) चन्द्रिका
   (C) सोम
   (D) विशु

90. महा + उत्सव =
   (A) महासत्व
   (B) महत्सव
   (C) महेत्सव
   (D) महोत्सव